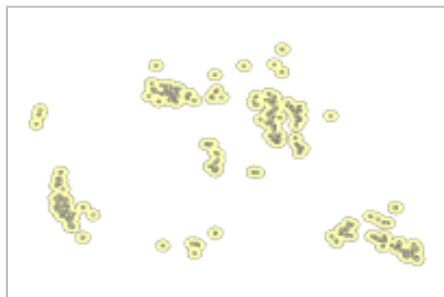


## Navajo Nation Aggregated Buffers Around Surficial and Underground Abandoned Uranium Mines



**Data format:** Shapefile

**File or table name:** NN\_AUM\_Buffer\_Surf\_Undrgrnd

**Coordinate system:** Geographic

**Theme keywords:** HRS-derived Scoring Buffers, Aggregated Buffers, Abandoned Uranium Mines, Surficial and Underground

**Abstract:** A multipart polygon shapefile of aggregated 1/4 mile, 1 mile, and 4 mile buffers around the combined surficial and underground extent of Abandoned Uranium Mine (AUM). These buffers were developed from the shapefile for AUMs named NN\_AUM\_Poly\_Surf\_Undrgrnd.shp. These buffers are associated with groundwater pathway analysis. This dataset covers the six Abandoned Uranium (AUM) Regions of the Navajo Nation.

### FGDC and ESRI Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Spatial Data Organization Information](#)
- [Spatial Reference Information](#)
- [Entity and Attribute Information](#)
- [Distribution Information](#)
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Metadata elements shown with blue text are defined in the Federal Geographic Data Committee's (FGDC) [Content Standard for Digital Geospatial Metadata \(CSDGM\)](#). Elements shown with green text are defined in the [ESRI Profile of the CSDGM](#). Elements shown with a green asterisk (\*) will be automatically updated by ArcCatalog. ArcCatalog adds hints indicating which FGDC elements are mandatory; these are shown with gray text.

### Identification Information:

#### Citation:

##### Citation information:

**Originators:** TerraSpectra Geomatics

##### Title:

Navajo Nation Aggregated Buffers Around Surficial and Underground Abandoned Uranium Mines

\***File or table name:** NN\_AUM\_Buffer\_Surf\_Undrgrnd

**Publication date:** July 2007

\***Geospatial data presentation form:** vector digital data

**Publication information:****Publication place:** San Francisco, CA**Publisher:** U. S. Environmental Protection Agency, Region 9, Superfund Program**\*Online linkage:**[\\Terra\\_dc\Navajo\NAUM\\_NN\\_Summary\DB\AUM\NN\\_AUM\\_Buffer\\_Surf\\_Undrgrnd.shp](#)**Description:****Abstract:**

A multipart polygon shapefile of aggregated 1/4 mile, 1 mile, and 4 mile buffers around the combined surficial and underground extent of Abandoned Uranium Mine (AUM). These buffers were developed from the shapefile for AUMs named NN\_AUM\_Poly\_Surf\_Undrgrnd.shp. These buffers are associated with groundwater pathway analysis. This dataset covers the six Abandoned Uranium (AUM) Regions of the Navajo Nation.

**Purpose:**

This dataset was developed to support the U.S. Environmental Protection Agency (USEPA) in its undertaking of an extensive scientific study to determine if abandoned uranium mines (AUM) and related mine features pose a significant risk to human health and the environment, and to identify areas requiring action to reduce risk for the Navajo Nation. This buffer dataset was developed to support the assessment of AUMs

**\*Language of dataset:** en**Time period of content:****Time period information:****Single date/time:****Calendar date:** July 2007**Currentness reference:**

publication date

**Status:****Progress:** Complete**Maintenance and update frequency:** None planned**Spatial domain:****Bounding coordinates:****\*West bounding coordinate:** -111.712184**\*East bounding coordinate:** -107.766280**\*North bounding coordinate:** 37.470146**\*South bounding coordinate:** 35.258175**Local bounding coordinates:****\*Left bounding coordinate:** -111.712184**\*Right bounding coordinate:** -107.766280**\*Top bounding coordinate:** 37.470146**\*Bottom bounding coordinate:** 35.258175**Keywords:****Theme:****Theme keywords:** HRS-derived Scoring Buffers, Aggregated Buffers, Abandoned Uranium Mines, Surficial and Underground**Theme keyword thesaurus:** None

**Place:**

**Place keywords:** Six AUM Regions, Navajo Nation, Arizona, New Mexico, Utah, United States

**Place keyword thesaurus:** None

**Access constraints:** None

**Use constraints:**

This dataset buffers combined surficial and underground abandoned uranium mines identified on or within one mile of the Navajo Nation for the six AUM Region. This dataset covers the six Abandoned Uranium (AUM) Region of the Navajo Nation.

Use of this data generally requires computer workstations with ESRI's Arc/Info (8.x or above), ArcGIS (8.x or above), or ArcView (3.x), or some other GIS or CAD software that is capable of reading or converting this dataset.

The data are provided "as-is," without warranty of any kind, either express or implied.

These data have been compiled as part of a desktop project to collect existing spatial data to support the study of Navajo abandoned uranium mines. No field verifications were undertaken as part of this desktop study.

**Point of contact:****Contact information:****Contact organization primary:**

**Contact organization:** U. S. Environmental Protection Agency, Region 9, Superfund Program

**Contact address:**

**Address type:** mailing and physical address

**Address:**

75 Hawthorne St (SFD 8-2)

**City:** San Francisco

**State or province:** CA

**Postal code:** 94105

**Country:** USA

**Contact voice telephone:** 415-972-3167

**Security information:**

**Security classification system:** None

\***Native dataset format:** Shapefile

\***Native data set environment:**

Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.1.0.780

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**Data Quality Information:****Attribute accuracy:****Attribute accuracy report:**

Buffer\_Ft was assigned by the ArcMap 9.1 software. Buffer is a text version.

**Completeness report:**

This dataset buffers combined surficial and underground abandoned uranium mines identified on or within one mile of the Navajo Nation for the six AUM Region. This dataset covers the six Abandoned Uranium (AUM) Region of the Navajo Nation.

**Positional accuracy:**

**Horizontal positional accuracy:**

**Horizontal positional accuracy report:**

The horizontal accuracy is derived from the accuracy of the buffered dataset, NN\_AUM\_Poly\_Surf\_Undrgrnd.shp

See the Positional Accuracy Statements for NN\_AUM\_Poly\_Surf.shp and NN\_AUM\_Poly\_Surf\_Undrgrnd.shp.

The statement for NN\_AUM\_Poly\_Surf is:

NAMLRP sourced AUMs were prepared from sets of 7.5 minute USGS topographic maps (accurate to ~67 feet) for the Navajo Nation with project areas located and identified.

Some AUMs were adjusted positionally or by shape based on DOQQ apparent surface disturbance, DRG mapped mines, and mine maps from literature. The PolySkey field records the source (Skeys) for these sources used to change AUM polygons. The horizontal accuracy for these changes would be taken from the reference source's horizontal accuracy report in its metadata.

The statement for E\_AUM\_Poly\_Undrgrnd is:

The mapped underground AUMs were automated from scanned maps, figures, and plates from literature sources that typically contained minimal information useful to georeferencing. Maps were georeferenced using USGS DOQQs and DRGs as the base along with the mine site feature (adits, pits, etc. found in S06220502.shp and as developed from other sources) positions. Maps of a given underground mine were used synergistically to develop an underground AUM polygon. Underground mine polygons were digitized only along the outside boundary of an underground mine polygon. Digitizing was done to show only the general outline of the underground mine polygon and not the minute detail.

Because of this process there is no numerically determined positional accuracy, however, the best accuracy would likely be no better than the positional accuracy of a USGS 1:100,000 scale topographic map (~167 feet).

**Lineage:**

**Process step:**

**Process description:**

NN\_AUM\_Poly\_Surf\_Undrgrnd.shp was buffered in aggregation by 1/4 mile, 1 mile, and 4 miles on the outside of all AUM polygons, using the ArcMap buffer wizard. This aggregated buffer shapefile cannot be related back to individual AUMs.

**Process software and version:** ESRI ArcGIS 9.1

**Process date:** July 2007

**Process contact:**

**Contact information:**

**Contact organization primary:**

**Contact organization:** TerraSpectra Geomatics

**Contact address:****Address type:** mailing and physical address**Address:**

2700 E Susnet Rd, Ste A-10

**City:** Las Vegas**State or province:** NV**Postal code:** 89120**Country:** USA**Contact voice telephone:** 702-795-8254[Back to Top](#)

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**Spatial Data Organization Information:****\*Direct spatial reference method:** Vector**Point and vector object information:****SDTS terms description:****\*Name:** NN\_AUM\_Buffer\_Surf\_Undrgnd**\*SDTS point and vector object type:** G-polygon**\*Point and vector object count:** 3**ESRI terms description:****\*Name:** NN\_AUM\_Buffer\_Surf\_Undrgnd**\*ESRI feature type:** Simple**\*ESRI feature geometry:** Polygon**\*ESRI topology:** FALSE**\*ESRI feature count:** 3**\*Spatial index:** TRUE**\*Linear referencing:** FALSE[Back to Top](#)

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**Spatial Reference Information:****Horizontal coordinate system definition:****Coordinate system name:****\*Geographic coordinate system name:** GCS\_North\_American\_1983**Geographic:****\*Latitude resolution:** 0.000000**\*Longitude resolution:** 0.000000**\*Geographic coordinate units:** Decimal degrees**Geodetic model:****\*Horizontal datum name:** North American Datum of 1983**\*Ellipsoid name:** Geodetic Reference System 80**\*Semi-major axis:** 6378137.000000**\*Denominator of flattening ratio:** 298.257222[Back to Top](#)

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## Entity and Attribute Information:

### Detailed description:

\***Name:** NN\_AUM\_Buffer\_Surf\_Undrgnd

### Entity type:

\***Entity type label:** NN\_AUM\_Buffer\_Surf\_Undrgnd

\***Entity type type:** Feature Class

\***Entity type count:** 3

### Entity type definition:

Aggregated Buffers for E\_AUM\_Poly\_Surf\_Undrgnd.shp

### Attribute:

\***Attribute label:** FID

\***Attribute alias:** FID

### \*Attribute definition:

Internal feature number.

### \*Attribute definition source:

ESRI

\***Attribute type:** OID

\***Attribute width:** 4

\***Attribute precision:** 0

\***Attribute scale:** 0

### Attribute domain values:

#### \*Unrepresentable domain:

Sequential unique whole numbers that are automatically generated.

### Attribute:

\***Attribute label:** Shape

\***Attribute alias:** Shape

### \*Attribute definition:

Feature geometry.

### \*Attribute definition source:

ESRI

\***Attribute type:** Geometry

\***Attribute width:** 0

\***Attribute precision:** 0

\***Attribute scale:** 0

### Attribute domain values:

#### \*Unrepresentable domain:

Coordinates defining the features.

### Attribute:

\***Attribute label:** Buffer\_Ft

\***Attribute alias:** Buffer\_Ft

\***Attribute type:** Number

\***Attribute width:** 19

\***Attribute number of decimals:** 11

**Attribute:**

\***Attribute label:** Buffers

\***Attribute alias:** Buffers

\***Attribute type:** String

\***Attribute width:** 15

**Overview description:****Dataset overview:**

There are 3 multipart polygons; one for each buffer distance.

**Entity and attribute overview:**

There are two thematic attributes:

Buffer\_Ft - the buffer distance in feet

Buffers - a text description of the buffer distance

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**Distribution Information:****Distributor:****Contact information:****Contact organization primary:**

**Contact organization:** U. S. Environmental Protection Agency, Region 9,  
Superfund Records Center

**Contact address:**

**Address type:** mailing address

**Address:**

95 Hawthorne St (SFD-7C)

**City:** San Francisco

**State or province:** CA

**Postal code:** 94105

**Country:** USA

**Contact voice telephone:** 415-536-2033

**Resource description:** NN\_AUM\_Buffer\_Surf\_Undrgnd.shp

**Distribution liability:**

Although these data have been processed successfully on a computer system for the USEPA, no warranty expressed or implied is made by the USEPA or its contractors regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. No responsibility is assumed by USEPA or its contractors in the use of these data.

**Standard order process:****Digital form:****Digital transfer information:**

\***Transfer size:** 2.546

\***Dataset size:** 2.546

**Custom order process:**

Contact the USEPA for a custom order.

**Technical prerequisites:**

Use of this data generally requires computer workstations with ESRI's Arc/Info (8.x or above), ArcGIS (8.x or above), or ArcView (3.x), or some other GIS or CAD software that is capable of reading or converting this dataset.

**Available time period:**

**Time period information:**

**Single date/time:**

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## Metadata Reference Information:

\***Metadata date:** 20070720

\***Language of metadata:** en

**Metadata contact:**

**Contact information:**

**Contact person primary:**

**Contact person:** Andrew Bain

**Contact organization:** U. S. Environmental Protection Agency, Region 9,  
Superfund Program

**Contact position:** Project Manager

**Contact address:**

**Address type:** mailing and physical address

**Address:**

75 Hawthorne St (SFD 8-2)

**City:** San Francisco

**State or province:** CA

**Postal code:** 94105

**Country:** USA

**Contact voice telephone:** 415-972-3167

\***Metadata standard name:** FGDC Content Standards for Digital Geospatial Metadata

\***Metadata standard version:** FGDC-STD-001-1998

\***Metadata time convention:** local time

**Metadata access constraints:** None.

**Metadata use constraints:**

None.

**Metadata security information:**

**Metadata security classification system:** None

**Metadata extensions:**

\***Online linkage:** <http://www.esri.com/metadata/esriprof80.html>

\***Profile name:** ESRI Metadata Profile

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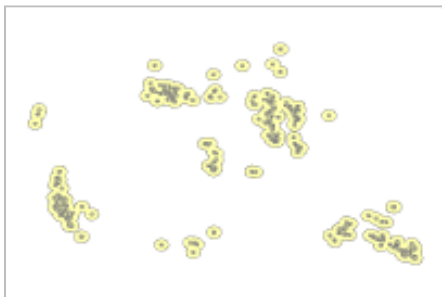
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## Binary Enclosures:

Thumbnail:

Enclosure type: Picture



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